

# Status, range use, and survival of the Mulchatna Caribou Herd (MCH)



## Acknowledgments:

- **Alaska Department of Fish and Game DWC**
  - Dillingham Area Office
  - King Salmon Area Office
  - Palmer Regional Office
- **U.S. Fish and Wildlife Service**
  - Togiak NWR
  - Yukon Delta NWR
- **National Park Service**
  - Lake Clark National Park





# Outline

Status of SW caribou herds

Mulchatna caribou herd (MCH)

- Population status/survival
- Range use

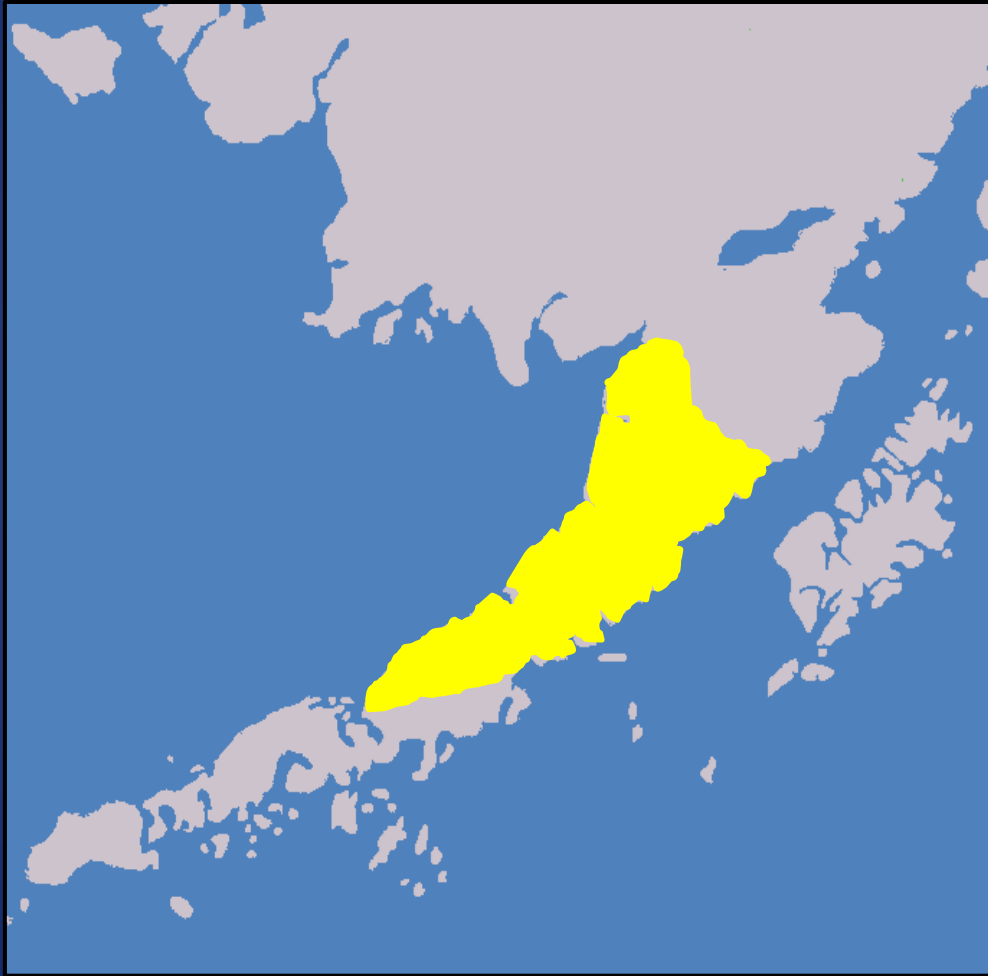
Research

- Bulls
- Calves
- Predator mgmt

# Southwest Alaska Caribou Herds



# Northern Alaska Peninsula Caribou Herd



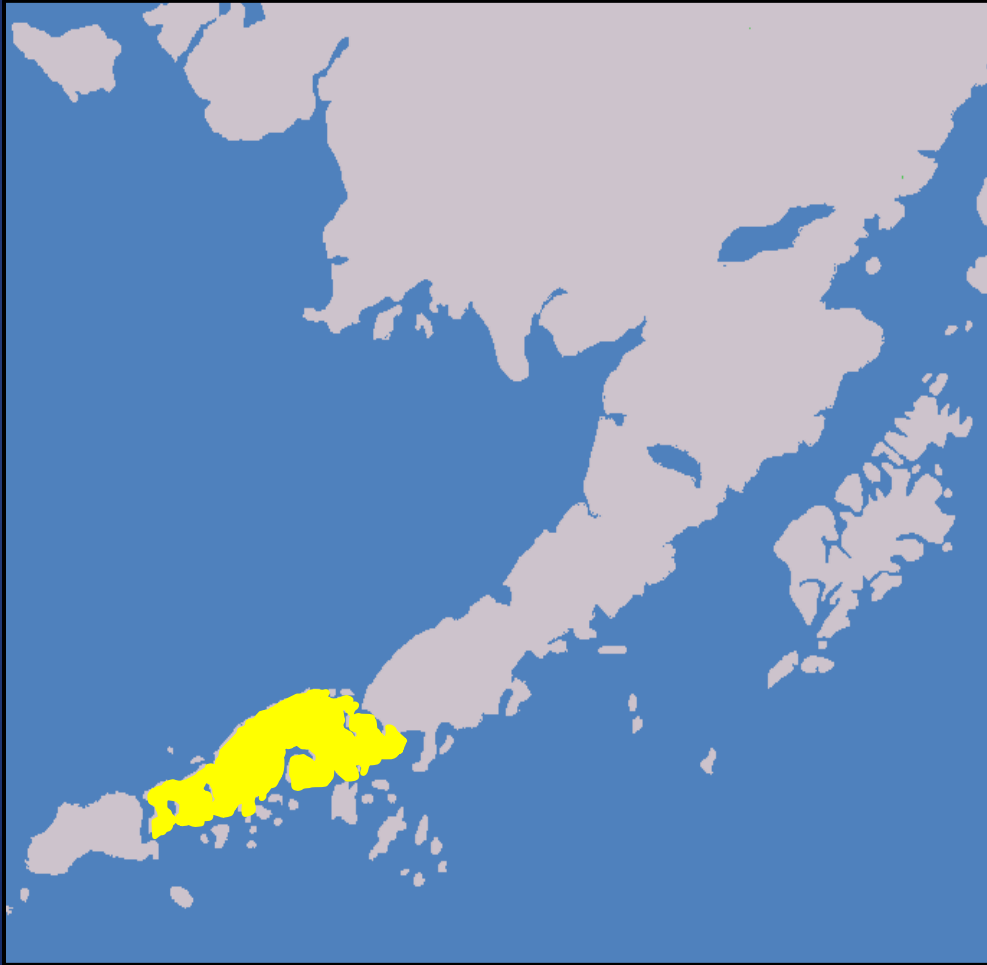
**Population :**      $\geq 2,000$

**Status:**             stable?

**Harvest:**            closed to hunting



# Southern Alaska Peninsula Caribou Herd

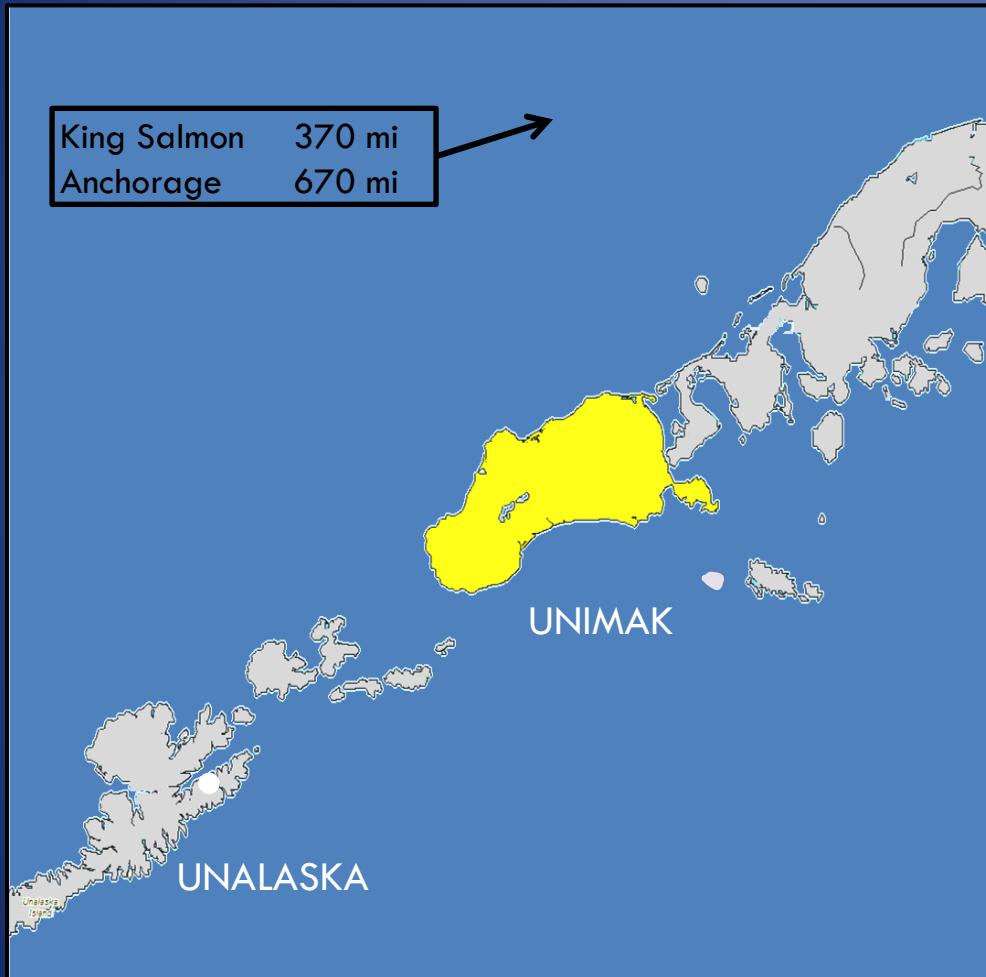


**Population :**      $\approx 800$

**Status:**             increasing

**Harvest:**            closed to hunting

# Unimak Caribou Herd



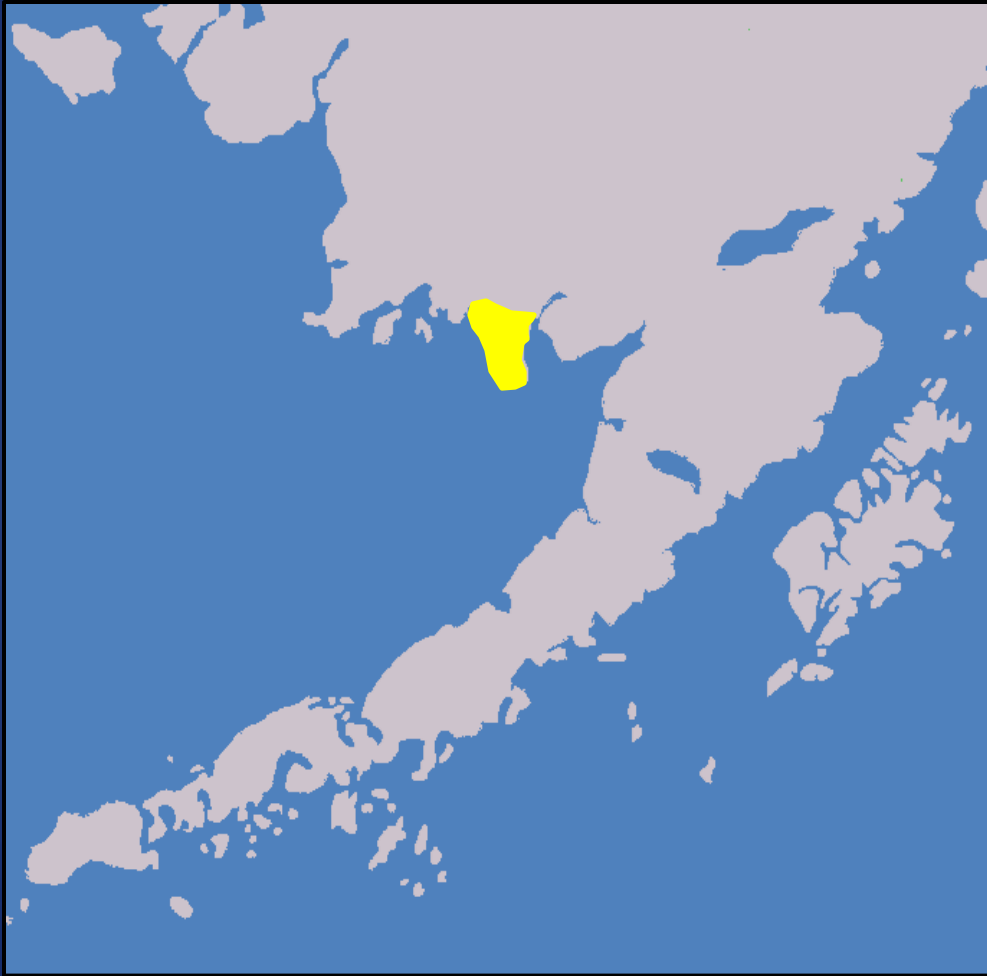
**Population :**      $\approx 300$

**Status:**             **declining**

**Harvest:**            **closed to hunting**

# Nushagak Peninsula Caribou Herd\*

\* Aderman and Lowe. 2011.

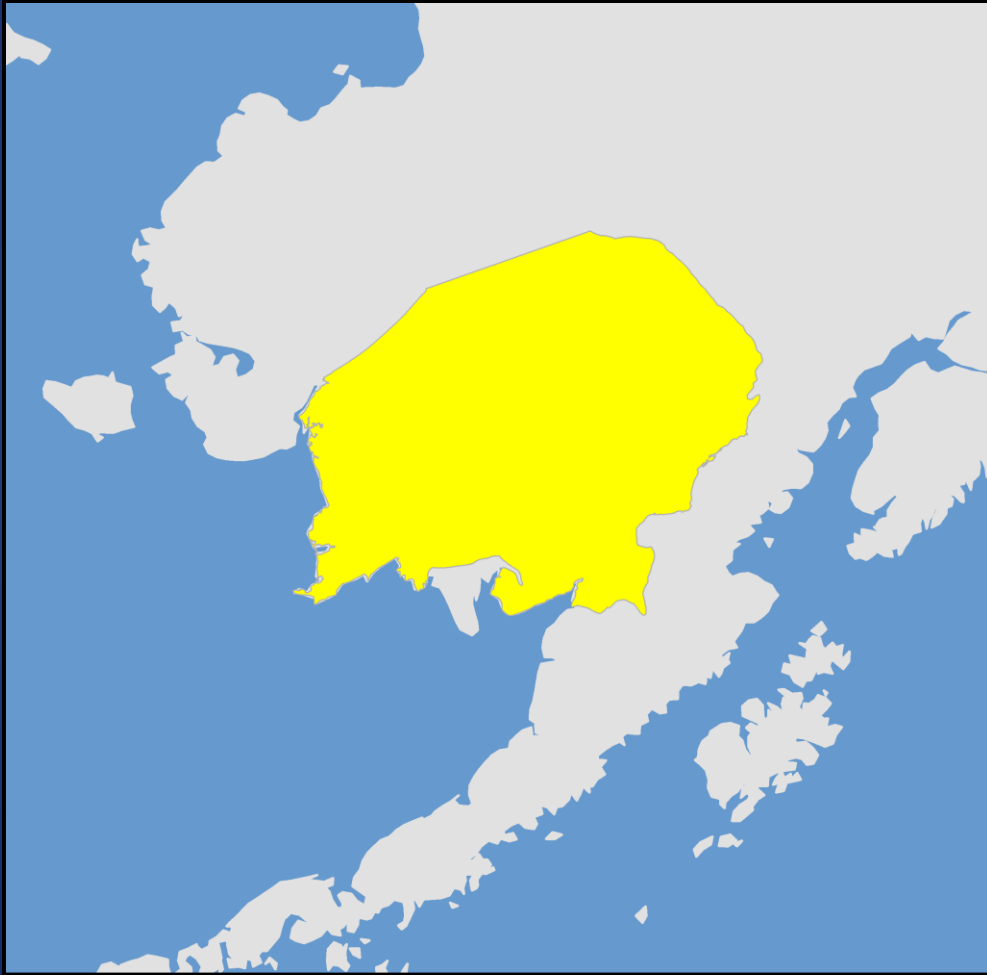


**Population : 801**

**Status: increasing**

**Harvest: subsistence season  
(0-127 annually)**

# Mulchatna Caribou Herd



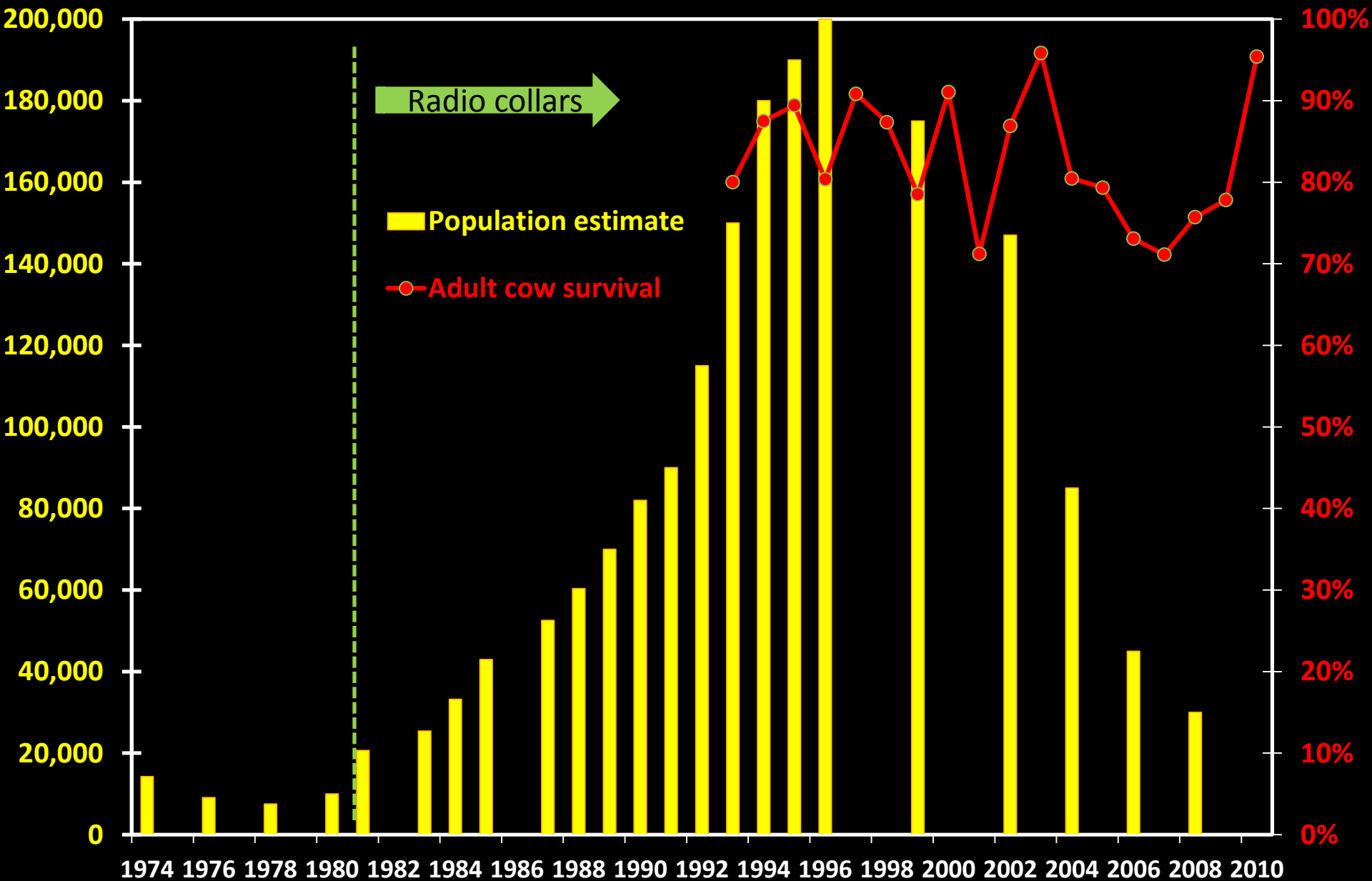
**Population :  $\geq 30,000$  (2008)**

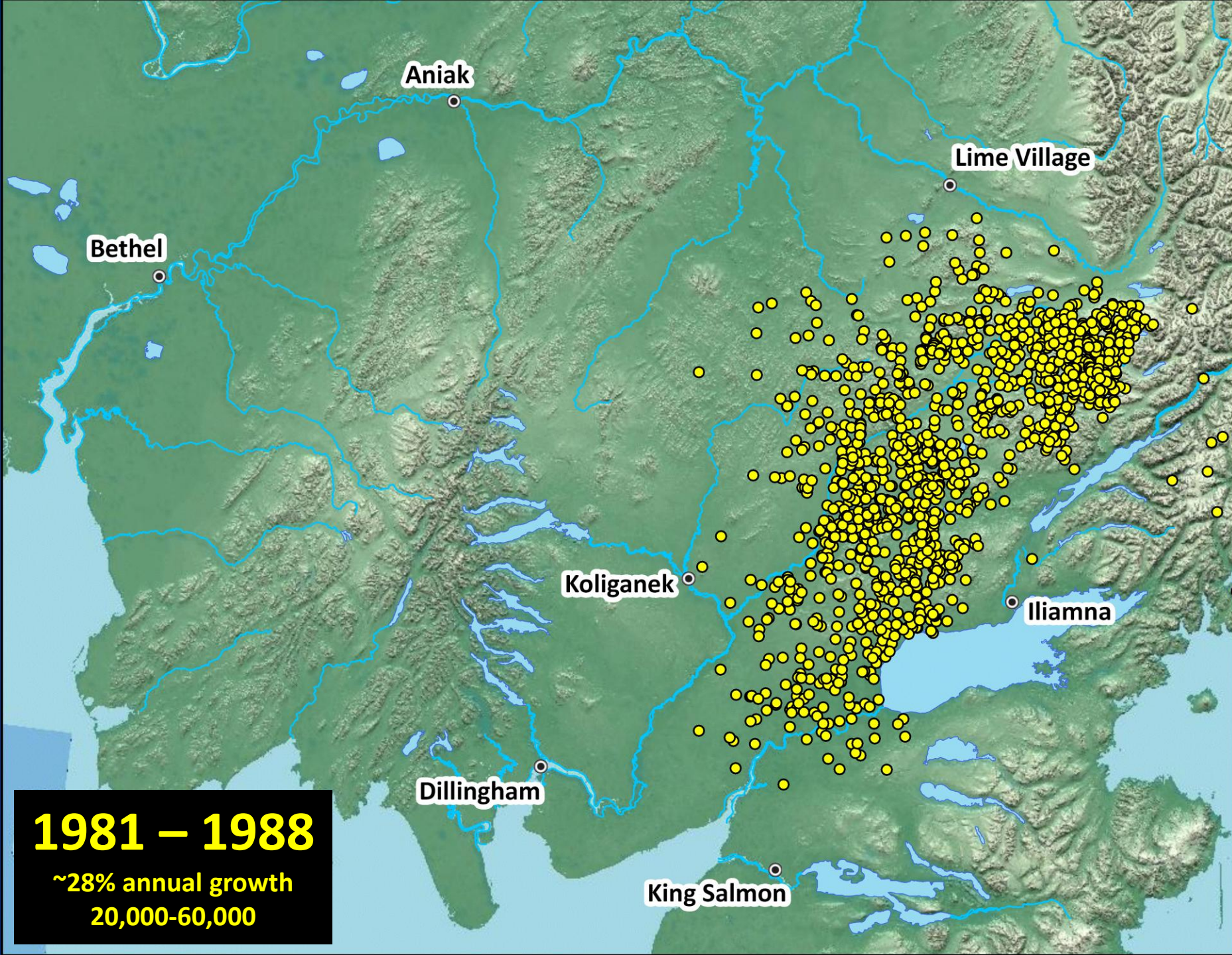
**Status:           decreasing?**

**Harvest:           general season  
(500-1000 annually\*)**



# MCH Population trend and Survival

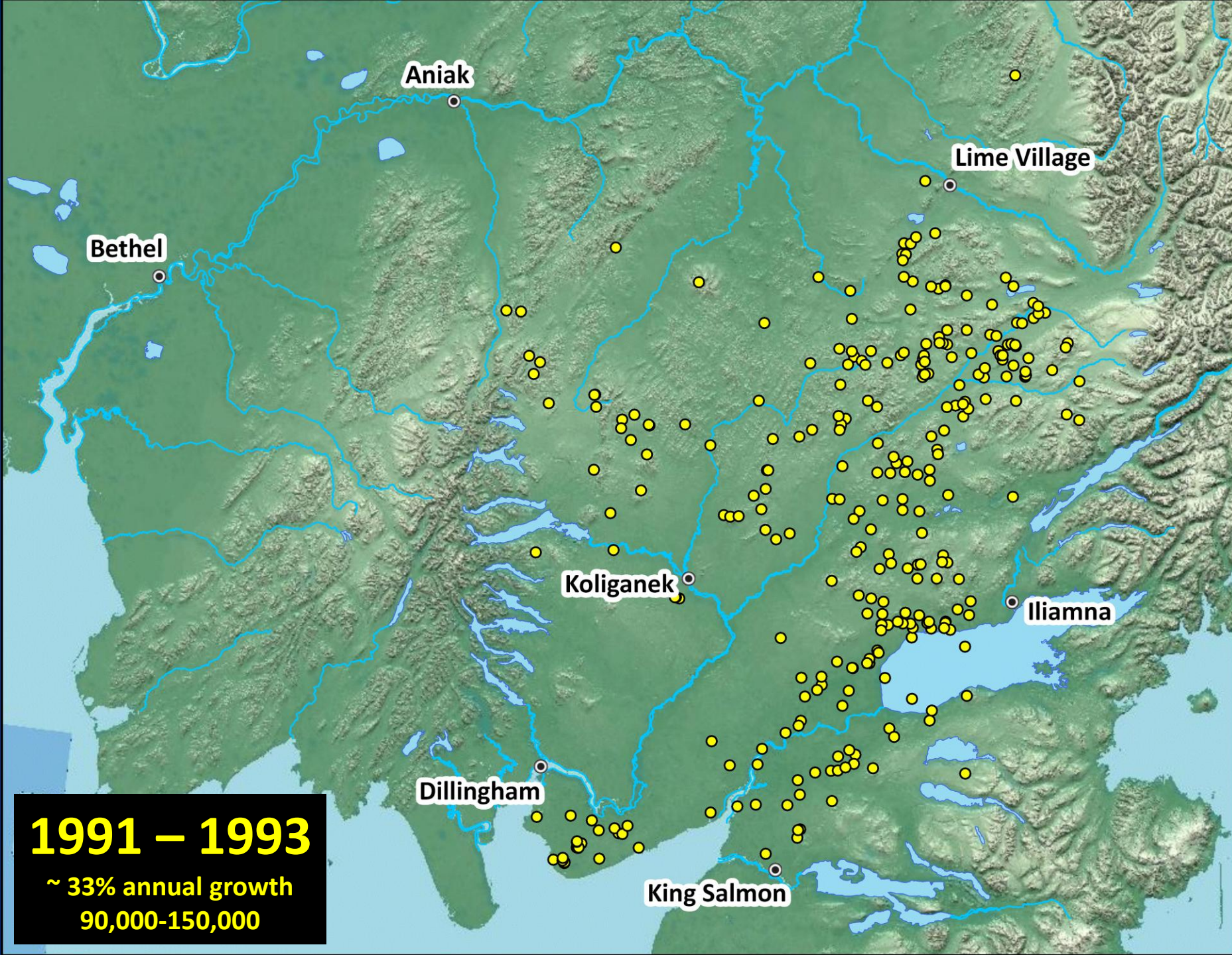




**1981 – 1988**

~28% annual growth  
20,000-60,000

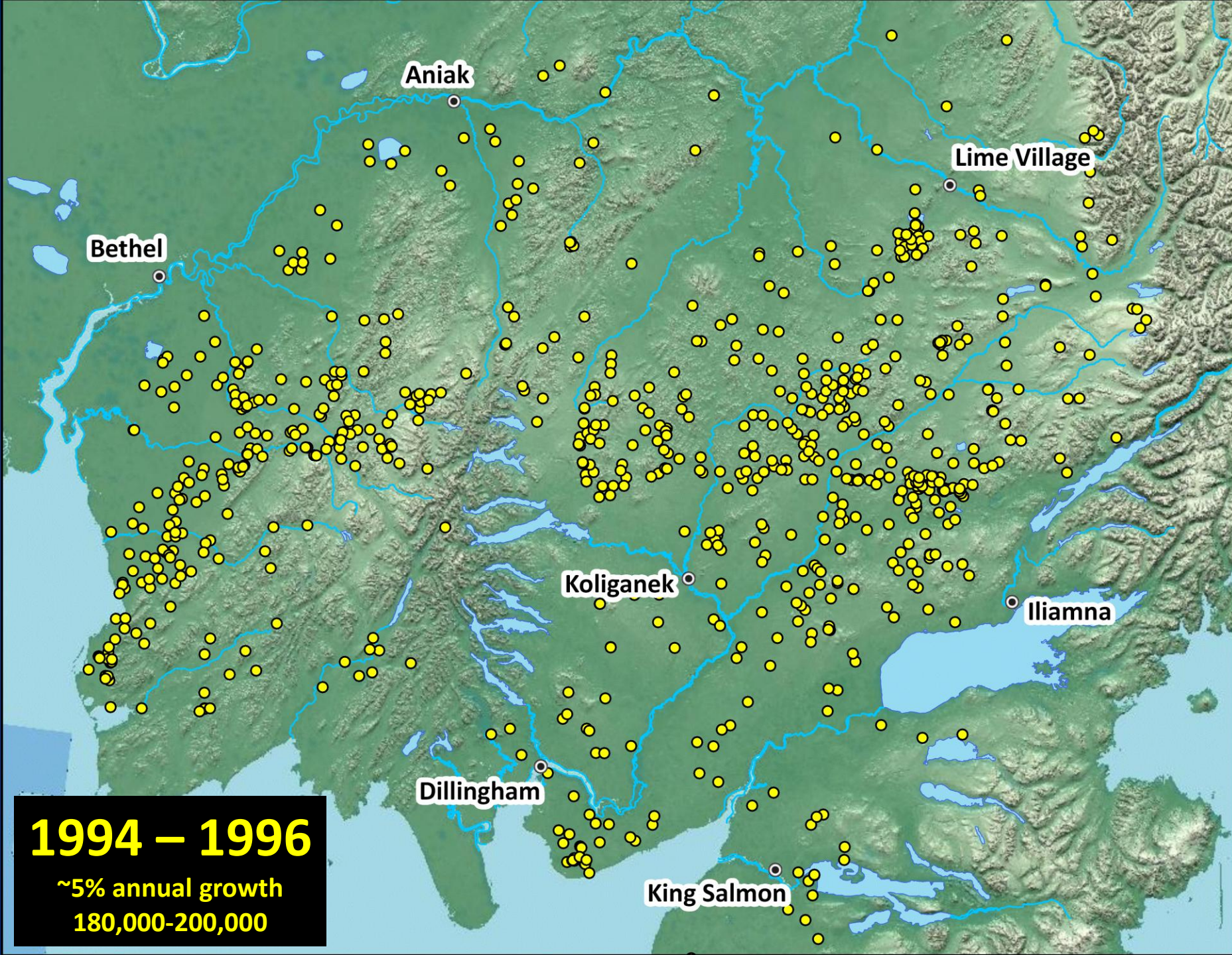




**1991 – 1993**

~ 33% annual growth  
90,000-150,000

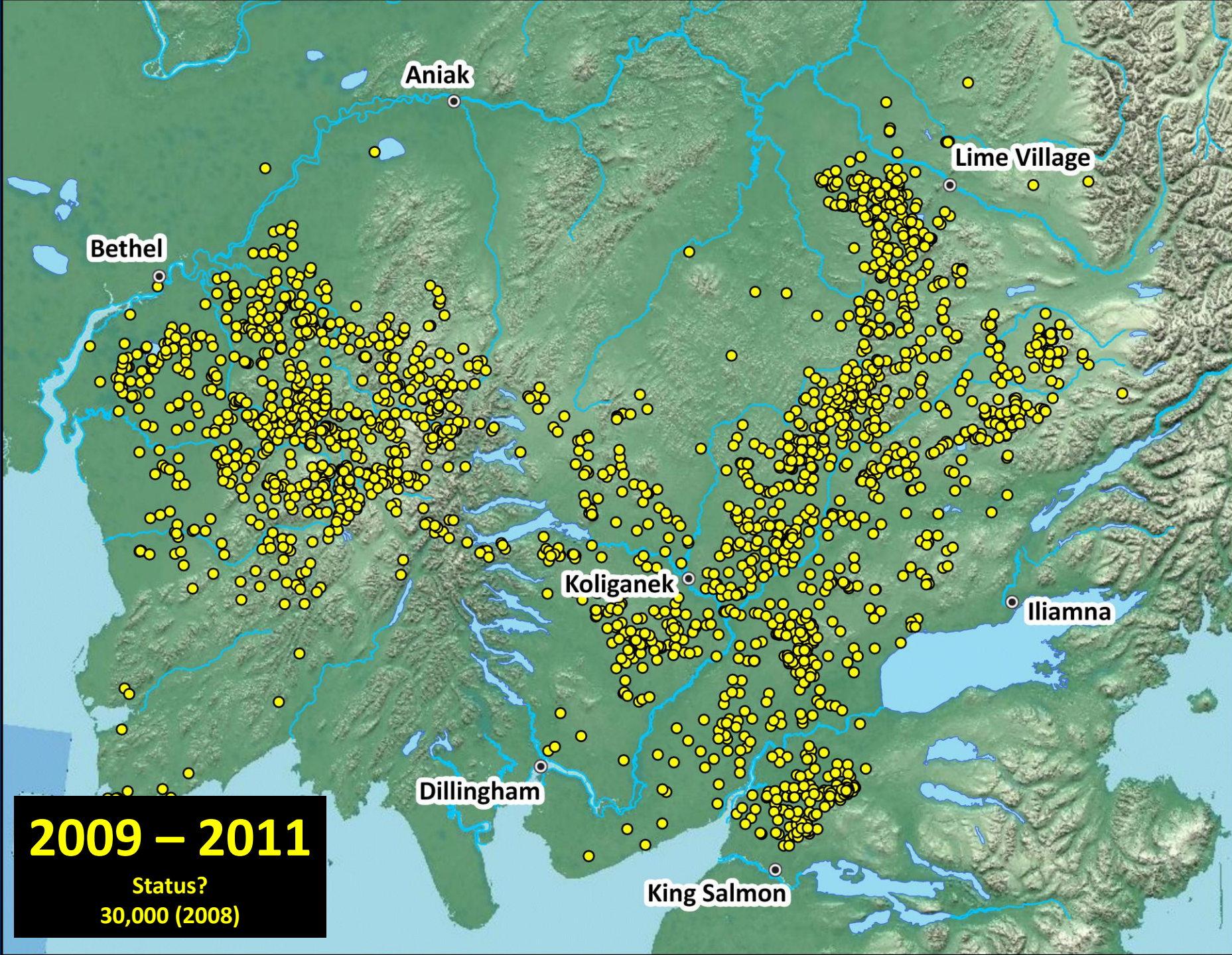




**1994 – 1996**

~5% annual growth  
180,000-200,000



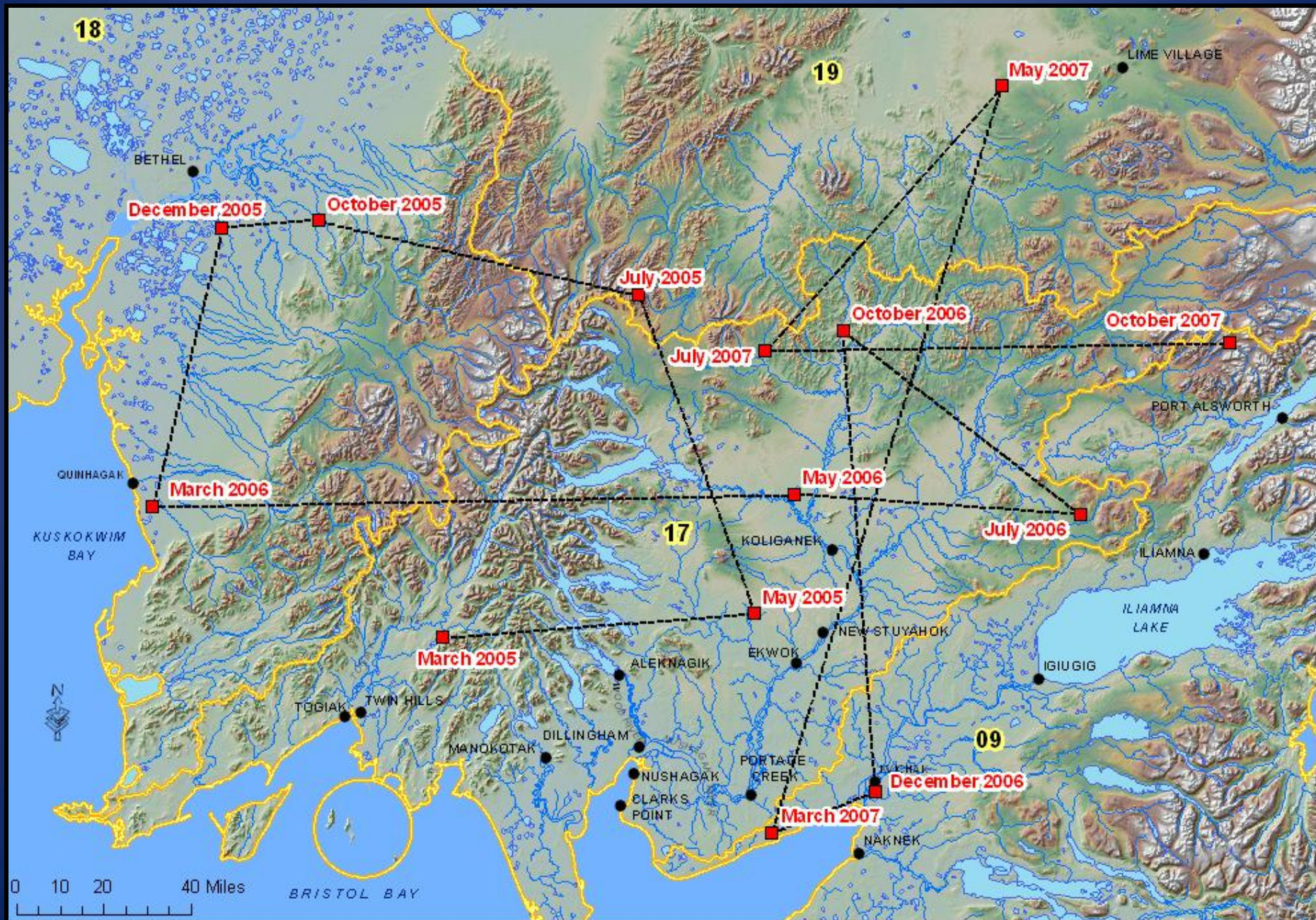


**2009 – 2011**

Status?  
30,000 (2008)



# Cow 05-10: March 2005 to October 2007

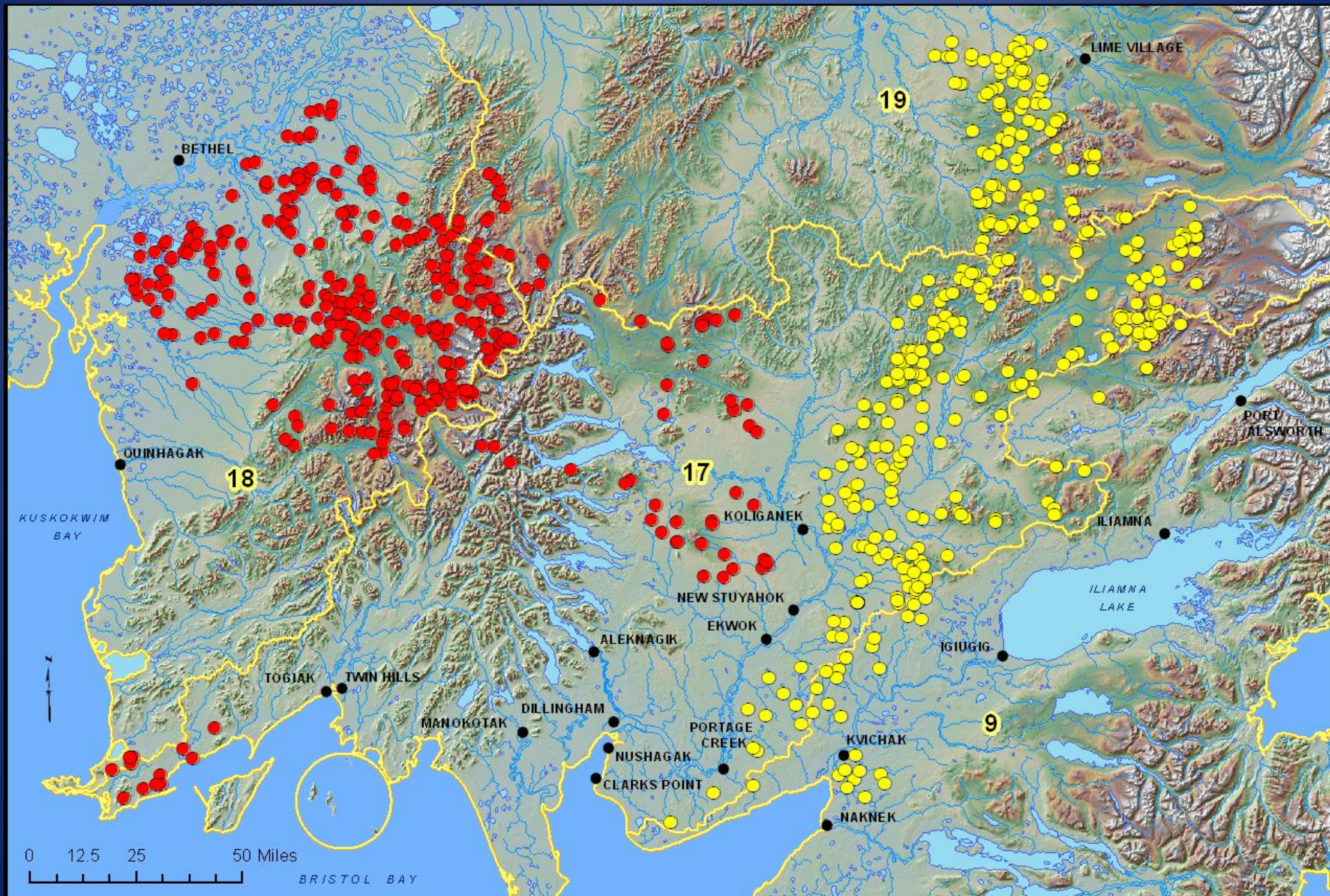




# 2010 Range Use: East vs West caribou

● - Western group

● - Eastern group





# Bull study

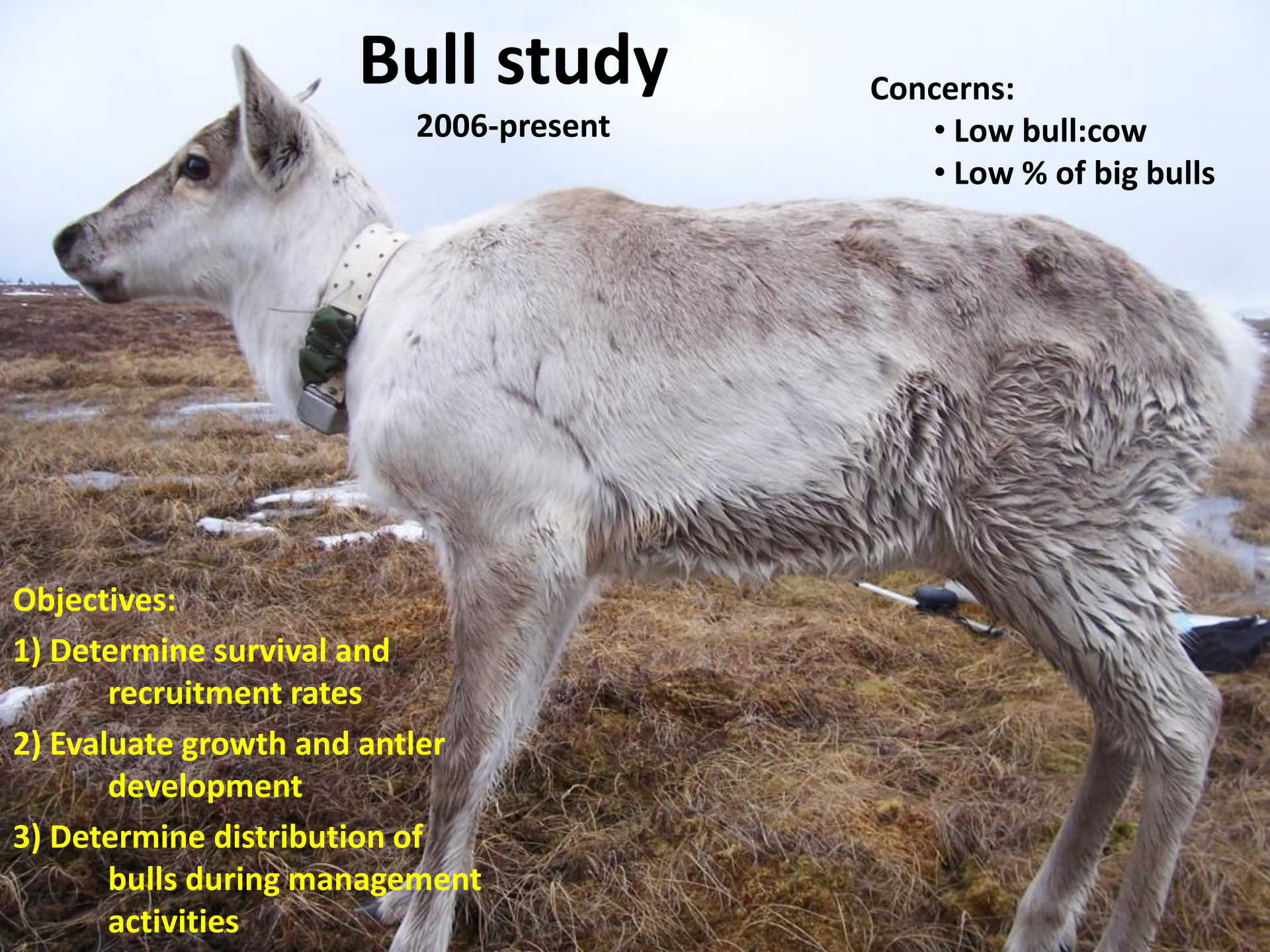
2006-present

## Concerns:

- Low bull:cow
- Low % of big bulls

## Objectives:

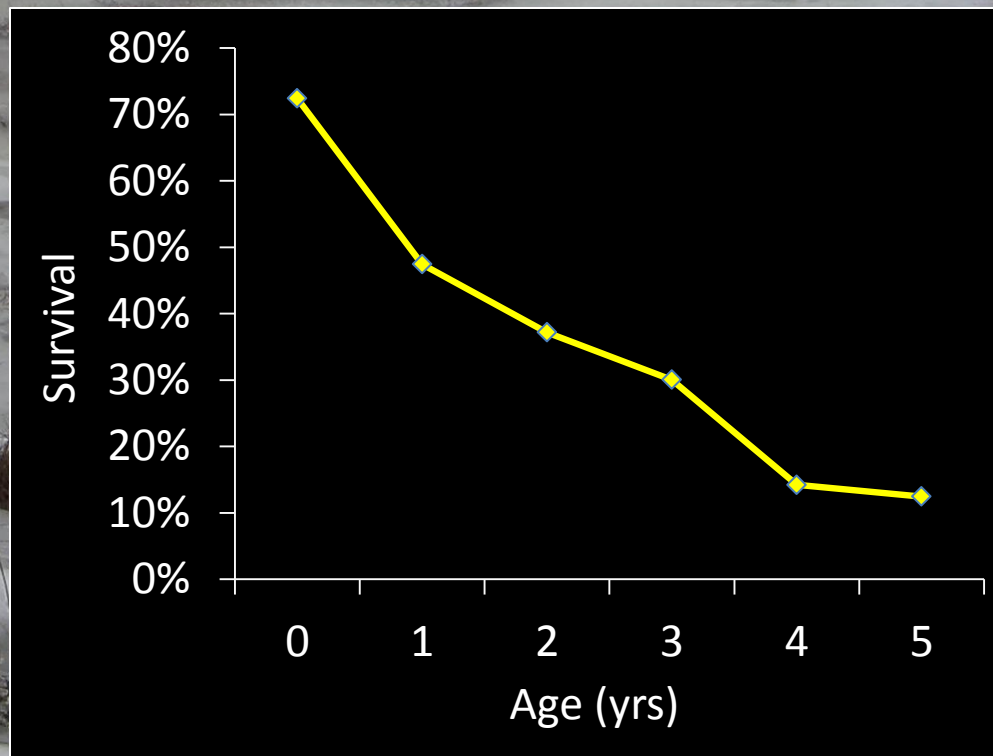
- 1) Determine survival and recruitment rates
- 2) Evaluate growth and antler development
- 3) Determine distribution of bulls during management activities





# MCH bull survival

## 2006 cohort (n=68)





# Antlers: Individual variation

## 3-YO bulls



# Antlers: Annual variation

2010:  
(4YO)



2011:  
(5YO)



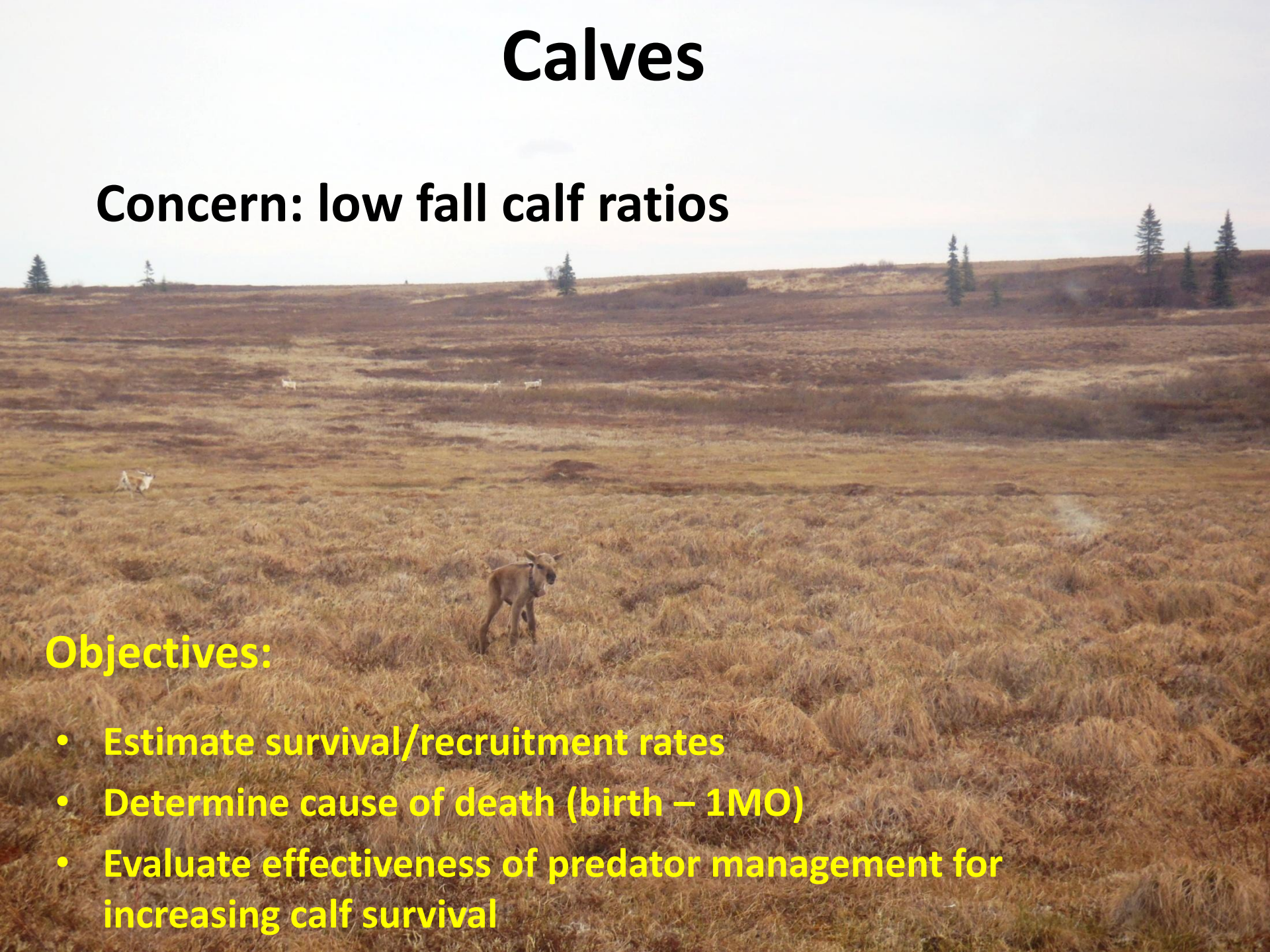


# Calves

**Concern: low fall calf ratios**

## Objectives:

- Estimate survival/recruitment rates
- Determine cause of death (birth – 1MO)
- Evaluate effectiveness of predator management for increasing calf survival

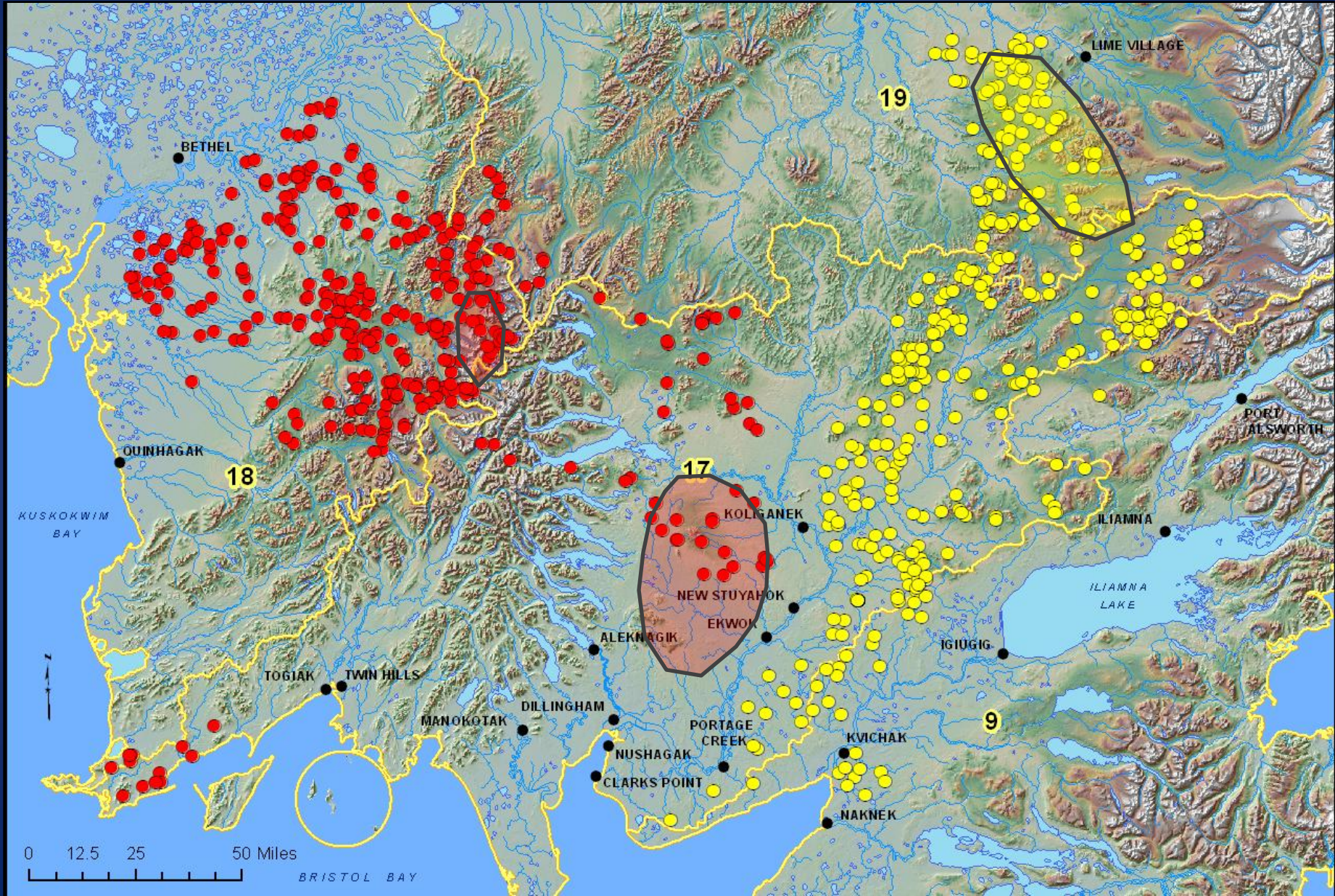




## Current annual range and calving areas

- - Western group

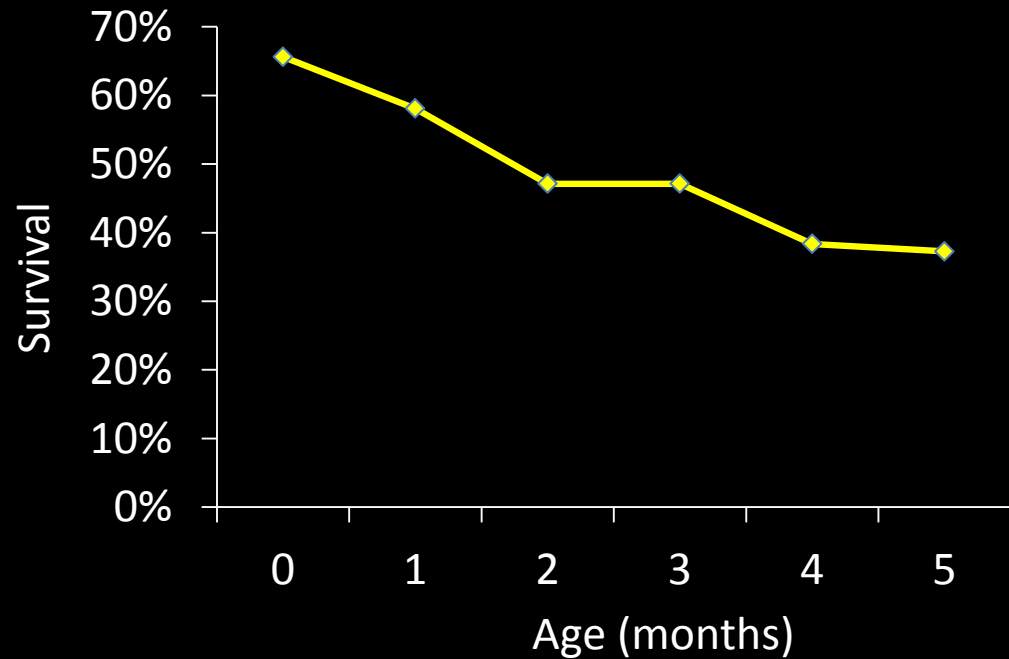
● - Eastern group



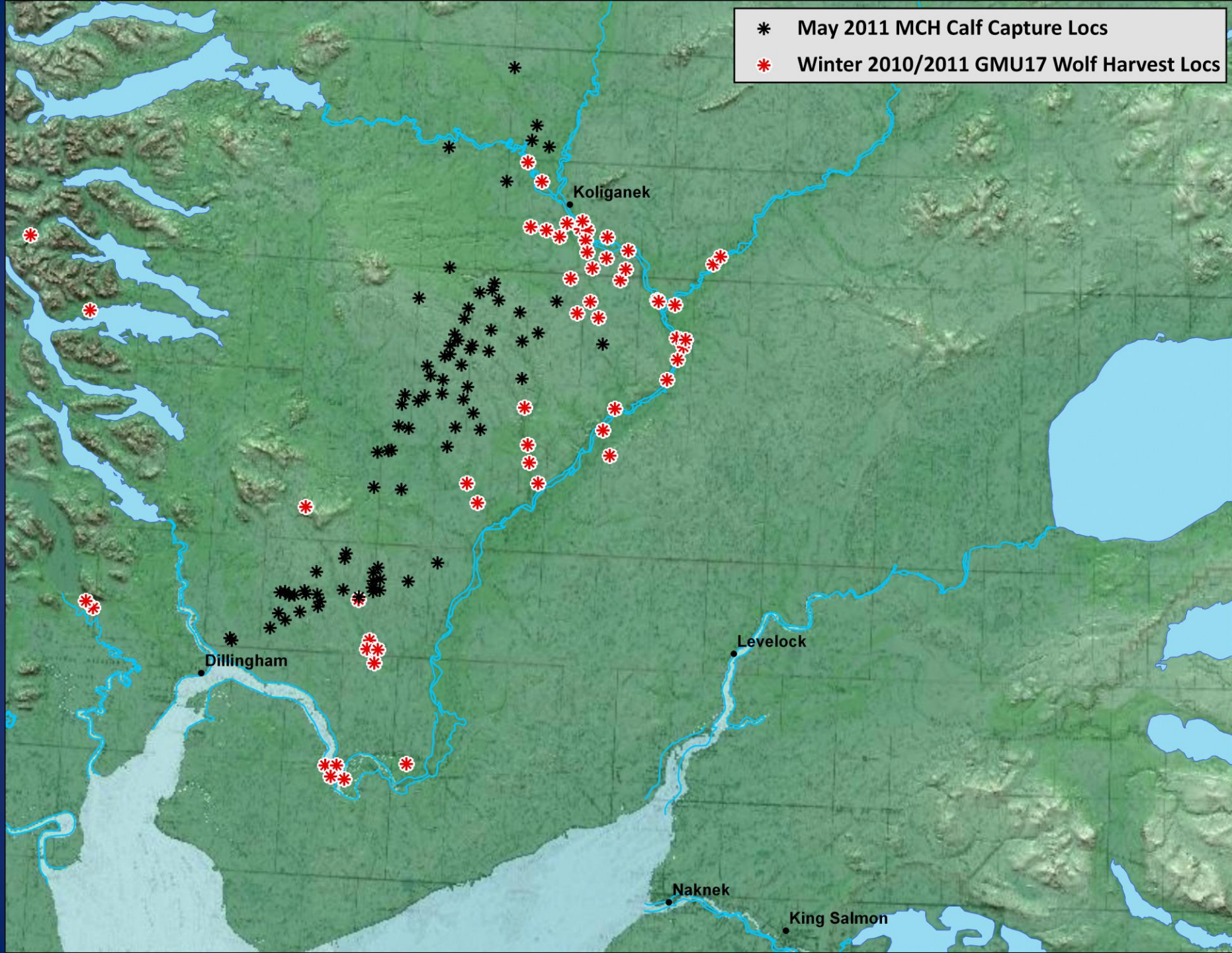


# MCH calf survival function

## 2011 cohort (n=88)

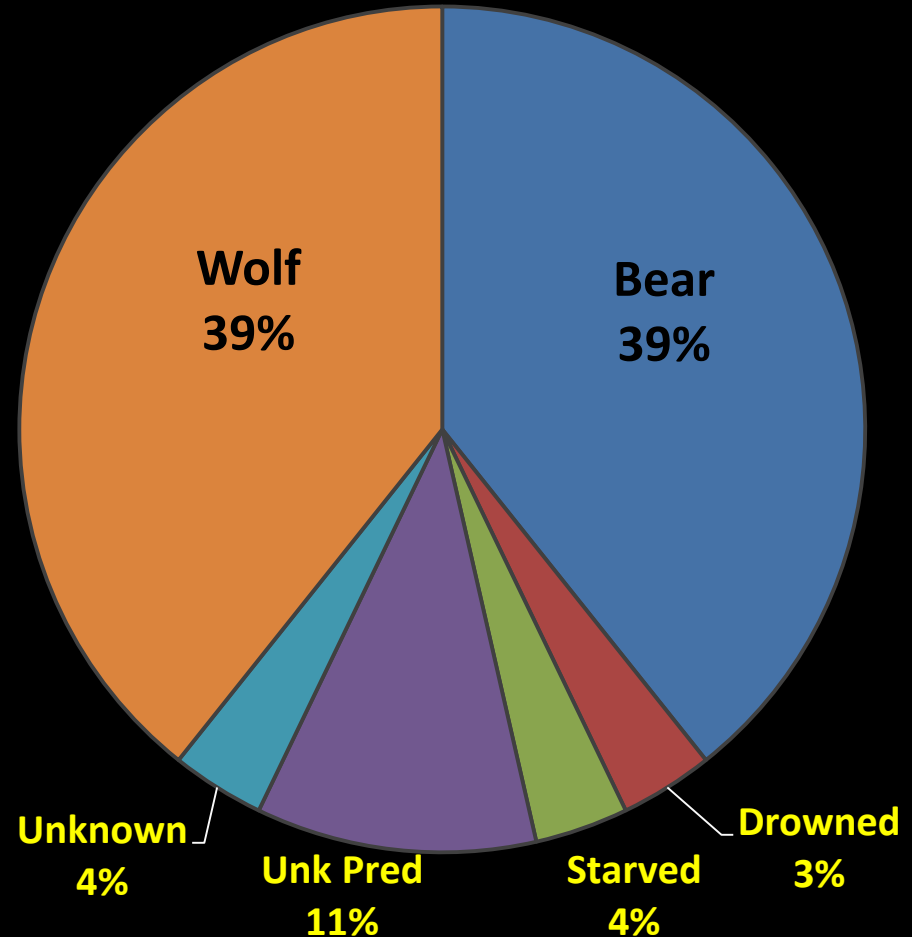








# Cause of death birth – 1 month





# 2012

- Bulls
- Calves
- Predator management methods





# The End

